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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,748	09/12/2003	Simon Tong	53051/288069	8166

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John S. Pratt, Esq.
Kilpatrick Stockton LLP
Suite 2800
1100 Peachtree Street
Atlanta, GA 30309

EXAMINER

PARDON, THUY N

ART UNIT	PAPER NUMBER
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2165

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/661,748

Applicant(s)

TONG ET AL.

Examiner

Thuy N. Pardo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 21, 2006 has been entered.

1. Applicant's Amendment filed on November 21, 2006 in response to Examiner's Office Action has been reviewed. Claims 1-58 are pending in the application. Claims 1, 27 and 53 are independent claims. Claims 1-14, 17-19, 22, 24, 25, 27-40, 43-45, 48, 50-53 and 56 are amended, and claims 57 and 58 are been added.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-58 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. For instance, the content of these claims is limited to an abstract idea, and does not constitute a statutory process, machine, manufacture or composition of matter in which the statutory process must result in a physical transformation. Federal courts have held that 35 U.S.C. Sec. 101 does have certain limited. First, the phrase "anything under the sun that

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is made by man” is limited by the text of 35 U.S.C. Sec. 101, meaning that one may only patent something that is a machine, manufacture, composition of matter or a process. See, e.g., Alappat, 33 F.3d at 1542, 31 USPQ2d at 1556; In re Warmerdam, 33 F. 3d 1354, 1358, 31 USPQ2d 1754, 1757 (Fed. Cir. 1994). For instance, Applicant’s claimed invention, found in claims 1-26 and 53-56, is non-statutory because they are not a combination of devices that appear to be directed to a machine and one or more steps of functions performed by the machine. There are no devices or machines found in the preambles or in the bodies of the claims 1-26 and 53-57. The limitation of “a computer-readable medium” recited in claims 27-52 and 58 is also non-statutory because computer-readable medium (or media) is not only limited to machines or devices such as a floppy disk, CD-ROM, magnetic disk, ROM, RAM, an ASIC, but also limited to carried waves or signals such as “transmit or carry instructions” (see 0015 of Specification). Since “computer-readable medium” is not a machine or device, it fails to fall within a statutory category of invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3. Claims 1-52, 57 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yadav et al. (hereinafter "Yadav") US Patent Application Publication No. 2004/0186828 in view of Yayoi et al. (hereinafter "Yayoi") US Patent application Publication No. 2003/0149704 A1.

As to claim 1, Yadav teaches the invention substantially as claimed, comprising:

- receiving a first search query [creating a first query, 0016; 202 of fig. 2A];
- receiving a second search query [creating a second query, 0016]
- determining a first article associated with the second search query [0016; fig. 6-fig. 9; 0048];
- determining a first ranking score for the first article based at least in part on data associated with the first search query [score 24 for Doc #1, fig. 9; 0067-0069]; and
- outputting a search result comprising the first article [display the results of the search to the user in score order, 220 of fig. 2B]

However, Yadav does not explicitly teach identifying a relationship between the first search query and the second search query based at least in part on a criterion although it has the same functionality of using a systematic query profiler to aid users editing their initial search queries to find information of interest to users [see the abstract of Yadav].

Yayoi teaches identifying a relationship between the first search query and the second search query based at least in part on a criterion [a first search query having a first element and a first weight that is associated with the first element and a second search query having the first element, and a second weight that is associated with the first element based on an end-search criterion is provided to the user terminal [see abstract; 0031-0036].

Therefore, it would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to add the feature of Yayoi to the system of Yadav as an essential means to optimize search operation of finding objects containing the data of interest to users.

As to claim 2, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches that the data associated with the first search query comprises a total selection score for the first search query [fig. 7-8].

As to claim 3, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches that the total selection score comprises a total number of users that selected a result returned for a search for the first search query [fig. 9].

As to claim 4, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches the data associated with the first search query comprises an instance score for the first search query [0060-0068].

As to claim 5, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches that the instance score comprises a number of instances the first article was shown in a search result for the first search query [0060-0068].

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As to claim 6, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches that the data associated with the first search query comprises a selection score for the first article [fig. 9].

As to claim 7, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches that the selection score for the first article comprises selections made in search results for the first search query in a context of the search query [0044-0046].

As to claim 8, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches that the total selection score for the first related query comprises selections made in search results for the first search query in a context of the second search query [fig. 3-9; 0044-0046].

As to claim 9, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches that the instance score for the first search query comprises selections made in search results for the first search query in a context of the second search query [fig. 3-9; 0044-0046].

As to claim 10, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches that the number of instances the first article was shown in a search result for the first search query comprises instances shown in a context of the second search query [0060-0068].

As to claim 11, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches that the first search query data associated with the first search query comprises a second selection score for a second article associated with the first search query [0068-0069; fig. 9].

As to claim 12, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches that determining the first article associated with the search query comprises determining the first article associated with the search query and with the first search query [0016].

As to claim 13, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches determining a first selection score for the first article when associated with the first search query, and wherein determining the first ranking score for the first article based at least in part on data associated with the first search query comprises determining the first ranking score for the first article based at least in part on the first selection score [fig. 4; 801-803 of fig. 8].

As to claim 14, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches determining an initial search result for the search query, the initial search result comprising the first article and determining that a search result for the first search query comprises the first article [ab; fig. 9].

As to claim 15, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches that the first article comprises a representation of the first article [ab; 0049; 220 of fig. 2B].

As to claim 16, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches the representation of the first article comprises a uniform resource locator [0068].

As to claim 17, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches that determining the first ranking score for the first article when associated with the first search query comprises determining a number of times the first article was selected when presented in search results for the first search query [218 of fig. 2B; fig. 9].

As to claim 18, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches that determining the number of times the first article was selected when presented in search results for the first search query comprises determining a number of clickthroughs for the first article when presented in search results for the first search query [218 of fig. 2B; fig. 9].

As to claim 19, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches that determining the first ranking score for the first article comprises: determining a first initial ranking score for the first article when associated with the search query and

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calculating a mathematical function comprising the first initial ranking score and the first selection score [fig. 7; 0059-0063].

As to claim 20, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches that calculating the mathematical function comprising the first initial ranking score and the first selection score comprises combining the first initial ranking score and the first selection score, weighted with at least one weighting factor [0062; fig. 4, 6, 7].

As to claim 21, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches that calculating the mathematical function comprising the first initial ranking score and the first selection score comprises combining the first initial ranking score and the first selection score, normalized with at least one normalization factor [0062].

As to claim 22, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches that determining a second article associated with the second search query; and (f) determining a second ranking score for the second article based at least in part on data associated with the first related query [fig. 4].

As to claim 23, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches ranking the first article and the second article based at least in part on the first ranking score and the second ranking score.

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As to claim 24, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches providing a search result for the search query having the first article and the second article ranked according at least in part to the first ranking score and the second ranking score.

As to claim 25, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches determining a second search query related to the search query, and wherein determining the first ranking score for the first article is further based at least in part on data associated with the second search query [0016; 0061].

As to claim 26, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches that determining the first search query further comprises determining a query previously made consecutively with the search query [0016; 0040].

As to claim 27, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches program codes [a computer code, 0073, claim 21].

As to claim 57, Yadav and Yayoi teach the invention substantially as claimed. Yadav further teaches that criterion is at least one of an order of submission, a time period, a misspelling relationship, a synonym relationship, and antonym relationship, or an acronym relationship [0016; 0040-0046].

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As to claims 28-40, 42-52 and 58, these claims are apparatus claims of claims 1-26 above, therefore, these claims are rejected under the same rationale.

4. Claims 53-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yadav et al. (hereinafter "Yadav") US Patent Application Publication No. 2004/0186828 in view of Yayoi et al. (hereinafter "Yayoi") US Patent application Publication No. 2003/0149704 A1, in further view of Prince US patent No. 6,877,002.

As to claim 53, Yadav and Yayoi teach the invention substantially as claimed as specified in claim 1 and 27 above. However, neither Yadav nor Yayoi teaches the feature of determining at least one quality signal for a first article from the plurality of articles, wherein the quality signal is associated at least in part with the first search query although it has the same functionality of submitting queries to search engines to find information of interest to the user. Prince teaches determining at least one quality signal for a first article from the plurality of articles, wherein the quality signal is associated at least in part with the first search query [data signal having a qualify keywords code segment for qualifying metadata if the score is equal to or greater than a predetermined threshold, col. 18, lines 14-18] and calculating a first ranking score for the first article based at least in part on the quality signal [col. 18, lines 14-18, 50-55; ab]. Therefore, it would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to add the feature of Prince to the Yadav-Yayoi's system as an essential means to optimize search operation of finding objects containing the data of interest to users.

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As to claim 54, Yadav, Yayoi and Prince teach the invention substantially as claimed. Yayoi further teaches ranking the first article against at least some of the plurality of articles based at least in part on the first ranking score [ranking of retrieved results, fig. 9].

As to claim 55, Yadav, Yayoi and Prince teach the invention substantially as claimed. Prince further teaches that the quality signal comprises clickthrough data [inherent in the system since quality signal is URI].

As to claim 56, Yadav, Yayoi and Prince teach the invention substantially as claimed. Yayoi further teaches that the first ranking score for the first article is calculated based at least in part on the relationship of the first search query and the second search query [0031-0036].

Response to Arguments

5. Applicant's arguments with respect to claims 1-58 have been considered but are moot in view of the new grounds of rejection.

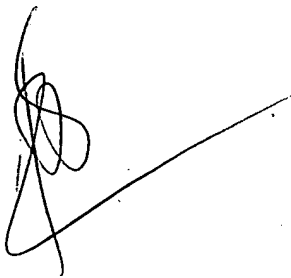
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy Pardo whose telephone number is 571-272-4082. The examiner can normally be reached on Mon-Thur.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 571-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

March 30, 2007

A handwritten signature in black ink, consisting of a series of loops and a long, sweeping horizontal stroke extending to the right.

THUY N. PARDO
PRIMARY EXAMINER